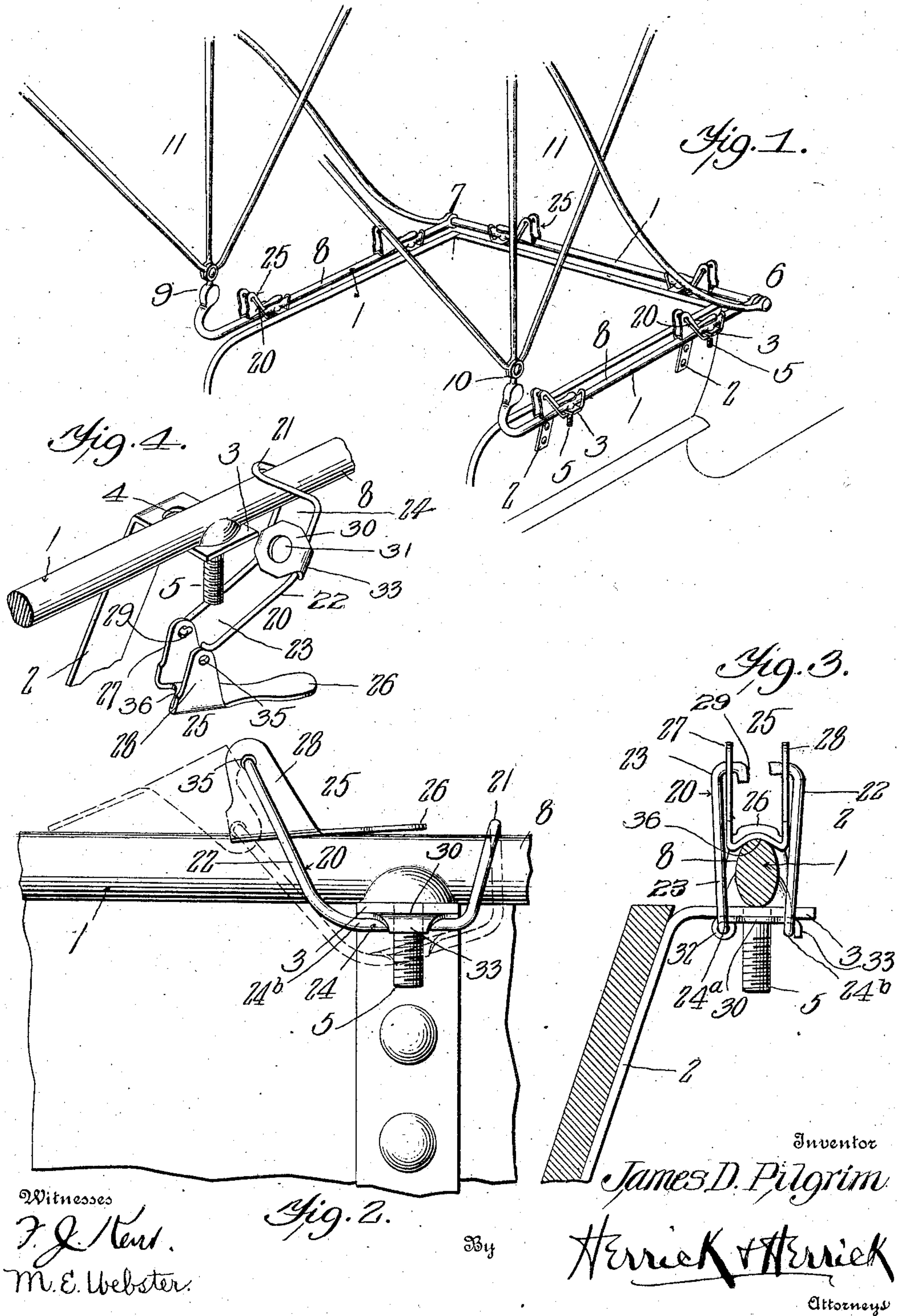


No. 850,600.

PATENTED APR. 16, 1907.

J. D. PILGRIM.
SHIFTING RAIL LOCK FOR VEHICLE TOPS.

APPLICATION FILED MAY 11, 1906.



UNITED STATES PATENT OFFICE.

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SHIFTING-RAIL LOCK FOR VEHICLE-TOPS.

No. 850,600.

Specification of Letters Patent.

Patented April 16, 1907.

Application filed May 11, 1906. Serial No. 316,261.

To all whom it may concern:

Be it known that I, JAMES D. PILGRIM, a citizen of the United States, residing at Auburn, in the county of Dekalb and State of Indiana, have invented certain new and useful Improvements in a Quick-Shifting-Rail Lock for Vehicle-Tops, of which the following is a specification.

The object of this invention is to provide simple and cheap means for the quick reliable connection of the shifting rail of a vehicle-top with the seat-irons or braces that are fixtures on the side and back boards of the vehicle-seat and to promote the convenient and speedy removal of the vehicle-top from the seat or its replacement thereupon, as occasion may require.

The invention consists of the novel elements and combinations and arrangements of parts, as hereinafter described, and defined in the appended claims.

Referring to the accompanying drawings, which are to be taken as a part of this specification, Figure 1 is a perspective view of the lower portion of vehicle-top braces, a shifting rail, and a plurality of my fasteners upon the shifting rail. Fig. 2 is an enlarged exterior view of a portion of one side board of a vehicle-seat, a portion of a shifting rail mounted thereon, and one of the improved rail-fasteners mounted on the rail, showing in full lines the locked position of the device and in dotted lines its position when the rail is about to be released from the seat-iron. Fig. 3 is an enlarged transverse sectional view of the side board of a vehicle-seat, a seat-iron secured on the surface of the side board, and a sectional view of the shifting rail held in place on the seat-iron by a detail of the fastening device. Fig. 4 is a detail view showing part of a shifting rail and seat-iron with the fastener in unlocked position, indicating how it must be manipulated to release the rail and seat-iron from engagement.

The improvements are applicable to any style of vehicle-top mounted upon a shifting rail and may be utilized for the detachable connection of the shifting rail upon seats for light vehicles of various kinds. As shown, to illustrate the application of the invention, the seat is of the ordinary box type, comprising two sides, a bottom, and a back. Upon the sides and back are secured seat-irons, said braces or seat-irons having a lateral member 3, bent outward, and is, as shown, perforated vertically at 4 to receive a pin 5

on the shifting rail 1, and it is to be understood that any preferred number of seat-irons 2 may be employed and be secured at proper points on the inner surfaces of the sides and back of the seat.

The shifting rail 1 consists of a metal bar bent at 6 and 7, these bends affording two members 8 of equal length, which may be disposed at right angles to the main portion of the shifting rail and in service are imposed upon and removably secured to the upper edges of the sides of the vehicle-seat, as will presently be described, said shifting rail having journaled projections 9 10, respectively, formed on the front and rear portions of the side members 8 for the rockable support of the prop-bars 11 of the vehicle-top, as is clearly indicated in Fig. 1.

On the shifting rail at suitable points a plurality of the pins 5 are formed or secured, said pins being respectively disposed above a seat-iron member 3, so as to be readily insertible down through the perforation 4 therein, which will retain the shifting rail in place on the top surface of the sides and back of the seat, preventing side movement of the shifting rail, but permitting its vertical displacement.

The improved shifting-rail fastener consists of a series of similar clamps of novel construction, there being preferably one for each pin and seat-iron engaged therewith, and as said clamping devices are alike a description of one will answer for the series.

20 indicates a piece of stiff somewhat resilient wire or the like, bent upon itself, as at 21. This doubled wire or loop is then bent into substantially U shape, having arms 22 and 23 and a body portion 24. In application the loop is suspended upon the shifting rail at the bend 21, the body portion 24 lies below the shifting rail and on each side of the pin 5, and the two pass upwardly above the shifting rails, where they are secured, as hereinafter described.

It has been stated that the two arms 22 and 23 pass upwardly above the shifting rail. Between said two arms 22 and 23 is secured a bent lever 25, eccentrically pivoted to said two arms, as best indicated in Fig. 2, and adapted to be manipulated to bring the loop from the loose position, shown in dotted lines in said figure, to the locked position, shown in full lines. Said lever preferably consists of a stem 26, whereby it is manipulated, and a bent part comprising a pair of

spaced lugs 27 28, in which respectively the arms are pivoted, as heretofore stated. As best indicated in Fig. 3, only one of said arms 23 is positively pivoted in its lug 27 by being bent over, as indicated at 29, Fig. 3. The end of the other arm 22 on the inside of its lug 28 is straight and is merely held in place by the spring-pressure of the wire, so that it may readily be pulled out from its aperture in the lug, as shown in Fig. 4.

Attached to the body portion 24 of the loop is a means for keeping the shifting-rail pin and seat-iron together when clamped by the fastening device, and also to keep the two parallel parts of the loop from spreading. This means preferably consists of a flat plate 30, having a central aperture 31 for the passage of the pin 5. Said plate is attached to one of the wires 24^a of body portion 24, as by means of a lip 32 bent around the wire, and on the other side said plate is provided with a sufficiently upbent flange 33 to enable it to retain the other wire 24^b of the body portion of the loop.

In operation the clamps are first to be placed upon the shifting rail. In Fig. 4 one of the clamps is shown pendent upon the rail, the end of arm 22 being removed from its aperture in the lug 28. With the clamp upon the shifting rail, a pin 5 of said rail is brought into position above one of the seat-irons 2. The lever end of the clamp is then turned upward toward the rail, plate 30 is moved on its wire so that the perforation in the plate may encircle pin 5, and the flange 33 of the plate positioned outside the wire 24^b, so that it will both hold the wires 24^a and 24^b together, to the end that neither can slip up and over the sides of the shifting rail and also to hold the entire clamp solidly in place against side movement. Meantime the ends of the arms 22 and 23 are sprung apart and passed upward and around the shifting rail to the position shown in dotted lines in Fig. 2. Thereupon the journal end of the wire 22 is sprung into the aperture 35 of lug 28, the lever being then in the position shown in dotted lines in Fig. 2. Next the lever is turned to the position shown in Fig. 2 in full lines by its tension drawing the body portion 24 of the loop closely up against seat-iron member 3, and thus securing seat-iron and shifting rail together. The lever being eccentrically mounted, substantially as shown, it is evident that when the stem 26 thereof is brought to the position shown in Fig. 2 in full lines flat against the shifting rail the clamp will be locked in place. To further guard against side movement of the clamp upon the shifting rail, I may provide upon the side of the stem 26 of the lever which contacts with the shifting rail when the lever is in locked position a groove 36, shaped to conform to the shifting rail. (See Fig. 3.)

In separating the shifting rail from the

seat-iron the operation heretofore described is reversed as to the sequence of steps.

The clamp may be removed entirely from the rail when not in use or may be left pendent thereon and can be given an ornamental finish, so as not to mar the appearance of the vehicle-seat when in place thereon.

What I claim is—

1. A fastener for the shifting rails of vehicle-seats comprising a pin depending from the shifting rail and loosely engaging a perforation in a lateral member on a seat-iron, a loop formed of a section of bent wire loosely connected at the bent end to the shifting rail adapted to pass under said lateral member and surround said depending pin, a bent lever on the other side of the shifting rail from said depending pin, and two spaced lugs on one end of said lever, in which the free ends of said loop are eccentrically pivoted, as and for the purpose set forth.

2. A fastener for the shifting rails of vehicle-seats comprising a pin depending from the shifting rail and loosely engaging a perforation in a lateral member on a seat-iron, a loop loosely connected at one end to the shifting rail adapted to pass under said lateral member and surround said depending pin, a bent lever on the other side of the shifting rail from said depending pin, and two spaced lugs on one end of said lever, in which the free ends of said loop are eccentrically pivoted, one of said free ends being detachable from its lug, as and for the purpose set forth.

3. A fastener for the shifting rails of vehicle-seats comprising a pin depending from the shifting rail and loosely engaging a perforation in a lateral member on a seat-iron, a loop loosely connected at one end to the shifting rail adapted to pass under said lateral member and surround said depending pin, a bent lever on the other side of the shifting rail from said depending pin comprising a stem portion having a longitudinal groove and two spaced lugs forming the bent portion of the lever, in which the free ends of said loop are eccentrically pivoted, one of said free ends being detachable from its lug, as and for the purposes stated.

4. A fastener for the shifting rails of vehicle-seats comprising a seat-iron, a loop, having a two-part body portion, engaging the shifting rail at one end and adapted to couple the shifting rail to the seat-iron, means pivotally attached to said body portion for keeping the two parts thereof in proper juxtaposition, and means for connecting the opposite end of said loop to the shifting rail.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES D. PILGRIM.

Witnesses:

WM. SHEFFER,

H. C. HRODELMIES.